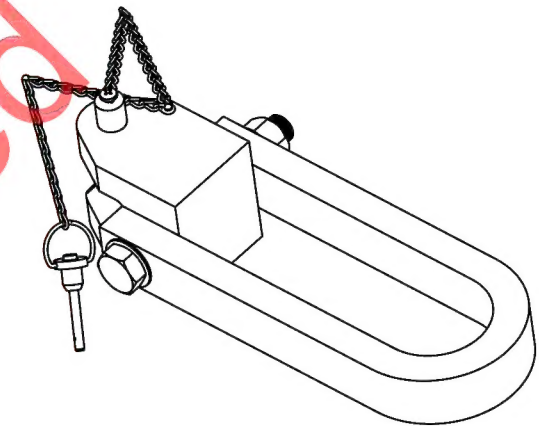
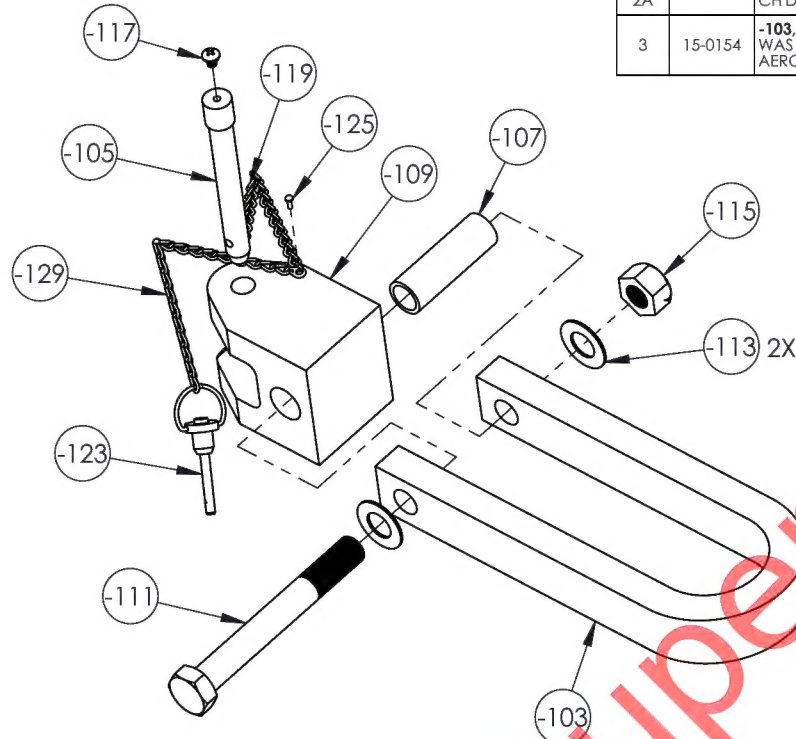


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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CHANGED PART #'S TO REFLECT THOSE OF BELL PART #'S	10/14/2010	WP	DW
1A		UPDATED PART #'S TO STANDARD, ADDED PLACARD W/LOAD INFO. SHT. 2 CORRECTED DASH # TO -103 FROM RB T102140-103. SHT 3-5 CORRECTED DASH NUMBERS.	9/13/2011	JAG	
1B		DELETED -121 & -127 FROM BOM AND ADDED -129, CH'D BOM P/N'S FOR -111, -117, -119, -123, & -125, CH'D -109 HEAT TREAT FROM RC 30-34 PER RW.	11/28/2011	RJC	RW
2		-103 CH'D DIM FROM 1.24 TO 1.25 & .620 TO .625 CORRECTED BOM, -123 # FROM NAS133356S10D TO NAS133356S10D	11/26/2013	JAG	GE
2A		CH'D TO BELL TOLERANCES, -103 CH'D DIMS WAS .625 IS .63, WAS 1.25 IS [1.25].	4/9/2014	DPD	GE
3	15-0154	-103, -105, -109 CH'D MATERIAL CALL OUT WAS 4140 IS 4140/4142. -107 CH'D MATERIAL CALL OUT WAS 4130 IS 4140/4142. CH'D FIRST ARTICLE WEIGHT TEST ADDRESS WAS RED BARN MACHINE IS DART AEROSPACE.	6/30/2015	RJC	JAG



UNDER REVIEW
URF 19-685 19.04.08 (VM)

NOTES:

1. TORQUE -115 NUT TO 30-55 FT.LBS.
2. ENGRAVE -103 WITH TEST LOAD 24000 lbs., SWL 12000 lbs., DATE TESTED, & T/N.

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			-103	1	STRAP	4140/4142	1-1/4 X 4-1/8 X 9-5/8 (SAME AS RB T102140-103)	2
			-105	1	PIN	4140/4142	Ø5/8 X 4-3/4	3
			-107	1	SLEEVE	4140/4142	Ø7/8 X 2-5/8 (SAME AS RB T102140-107)	4
			-109	1	CLEVIS	4140/4142	2-1/2 X 3 X 3-5/8	5
		B/O	-111	1	HEX HEAD CAP SCREW	Gr. 8 CAD PLATED	5/8-18 UNF X 5 (NAS6610-64)	1
		B/O	-113	2	FLAT WASHER	CAD PLATED STEEL	Ø5/8 ID (MS20002C10)	1
		B/O	-115	1	FLANGE NUT	CAD PLATED STEEL	5/8-18 UNF (NAS1291-10)	1
		B/O	-117	1	PHILLIPS MACH. SCREW	PLATED STEEL	10-24 X 1/4 MCMaster-CARR #90272A238	1
		B/O	-119	1	CHAIN	BRASS	1/0 SIZE X 10" LONG (NAS1455B00-10)	1
		B/O	-123	1	BALL LOCK PIN	PLATED STEEL	Ø3/16 X 1" USABLE (NAS1333S6S10D)	1
		B/O	-125	1	DRIVE SCREW	PLATED STEEL	Ø.100 X 1/4 (MS21318-15)	1
		B/O	-129	1	CHAIN	BRASS	1/0 SIZE X 6" LONG (NAS1455B00-6)	1

DART
AEROSPACE

LIFTING TOOL

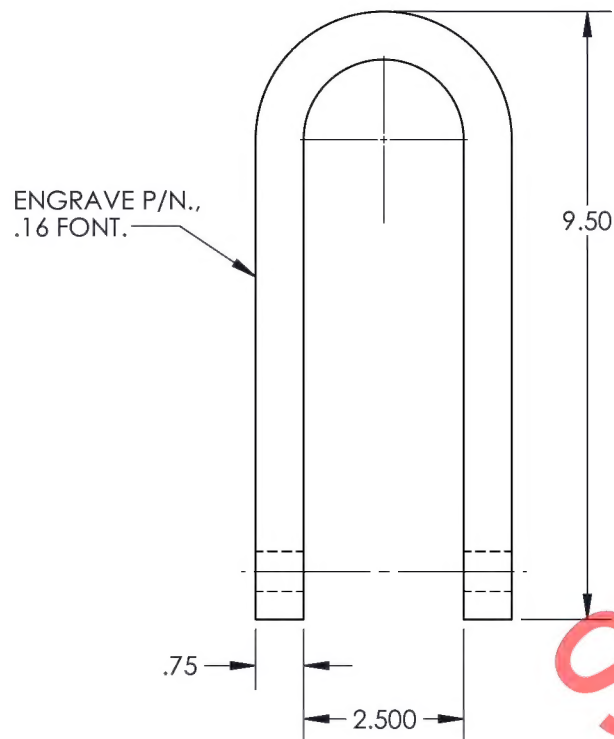
DWG NO. **RB T102137-107**

REV
3

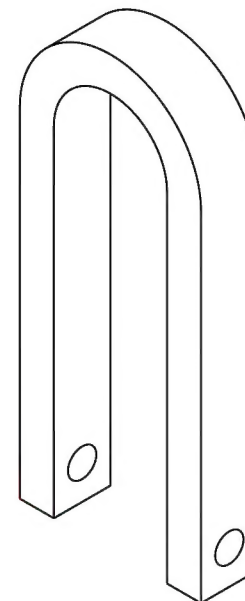
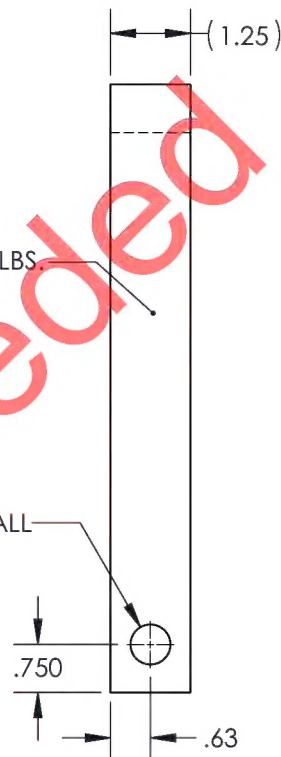
MAT'L		DRAWN BY: PERRITT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		APPROVED <i>D Weil</i>	
.XXX ± .005	FRACTIONS ± 1/8	HEAT TREAT	
.XX ± .01	ANGLES ± 5°	FINISH	
.X ± .1		SPEC	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R		USED ON MODEL	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING		BELL 222, 230, 407, 427, 429, 430	
SCALE	1:4	DATE	7/22/2010
		SHEET 1 OF 6	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CHANGED PART #'S TO REFLECT THOSE OF BELL PART #'S	10/14/2010	WP	DW
1A		CORRECTED DASH # TO -103 FROM RB T102140-103.	9/13/2011	JAG	
2		CH'D DIM FROM 1.24 TO 1.25 & .620 TO .625	11/26/2013	JAG	GE
2A		-103 CH'D DIMS WAS .625 IS .63, WAS 1.25 IS (1.25).	4/9/2014	DPD	GE
3	15-0154	-103 CH'D MATERIAL CALL OUT WAS 4140 IS 4140/4142.	6/30/2015	RJC	JAG



ENGRAVE T/N, S/N,
& "MADE IN USA" TO FIT.
ENGRAVE "CAPACITY 12000 LBS.
PROOF LOAD 24000 LBS."
3/16 FONT.



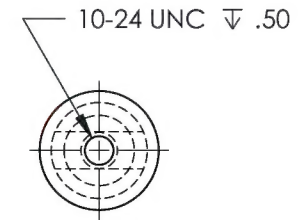
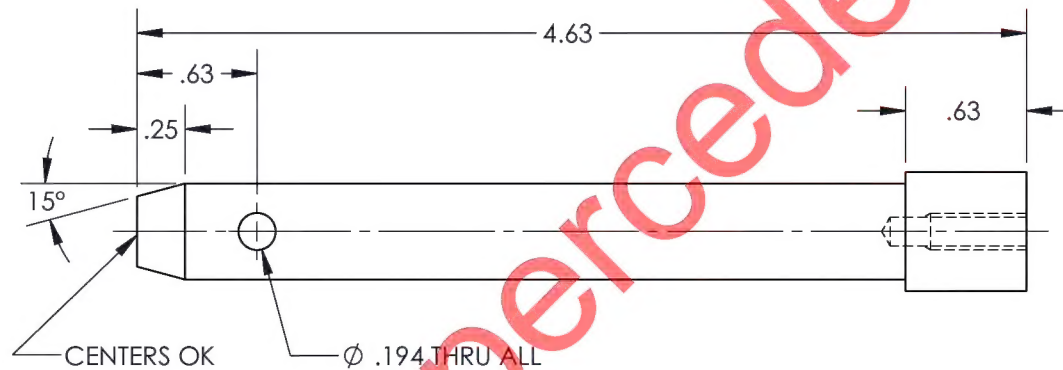
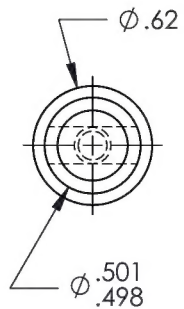
UNDER REVIEW
URF 19-685 19.04.08 (VM)

(-103)
STRAP

DART AEROSPACE	
TITLE LIFTING TOOL	
DWG NO. RB T102137-107-103	REV 3
MAT'L 4140/4142	DRAWN BY: PERRITT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005	HEAT TREAT RC 32-38
.XX ± .01	FINISH CAD PLATE YELLOW
.X ± .1	SPEC QQ-P-416F, TYPE II, CLASS II
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	BELL 222, 230, 407, 427, 429, 430
SCALE 1:3	DATE 7/22/2010
SHEET 2 OF 6	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CHANGED PART #'S TO REFLECT THOSE OF BELL PART #'S	10/14/2010	WP	DW
1A		CORRECTED DASH # TO -105 FROM RB T102137-105	9/13/2011	JAG	
3	15-0154	-105 CH'D MATERIAL CALL OUT WAS 4140 IS 4140/4142.	6/30/2015	RJC	JAG



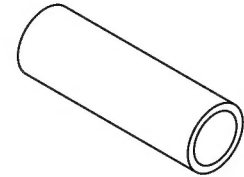
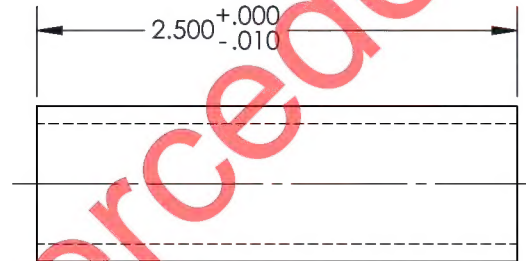
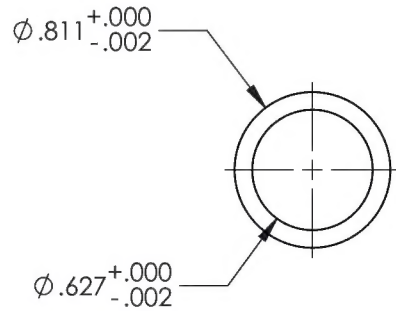
UNDER REVIEW
URF 19-685 19.04.08 (VM)

(-105)
PIN

DART AEROSPACE	
TITLE LIFTING TOOL	
DWG NO. RB T102137-107-105	REV 3
MAT'L 4140/4142	DRAWN BY: PERRITT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005	HEAT TREAT RC 46-50
.XX ± .01	FINISH CAD PLATE YELLOW
.X ± .1	SPEC QQ-P-416F, TYPE II, CLASS II
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	BELL 222, 230, 407, 427, 429, 430
SCALE 1:1	DATE 7/22/2010
SHEET 3 OF 6	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CHANGED PART #'S TO REFLECT THOSE OF BELL PART #'S	10/14/2010	WP	DW
1A		CORRECTED DASH # TO -107 FROM RB T102140-107	9/13/2011	JAG	DW
3	15-0154	-107 CH'D MATERIAL CALL OUT WAS 4130 IS 4140/4142.	6/30/2015	RJC	JAG



Superceded

UNDER REVIEW
URF 19-685 19.04.08 (VM)

NOTE:
SAME PART AS T102140-107

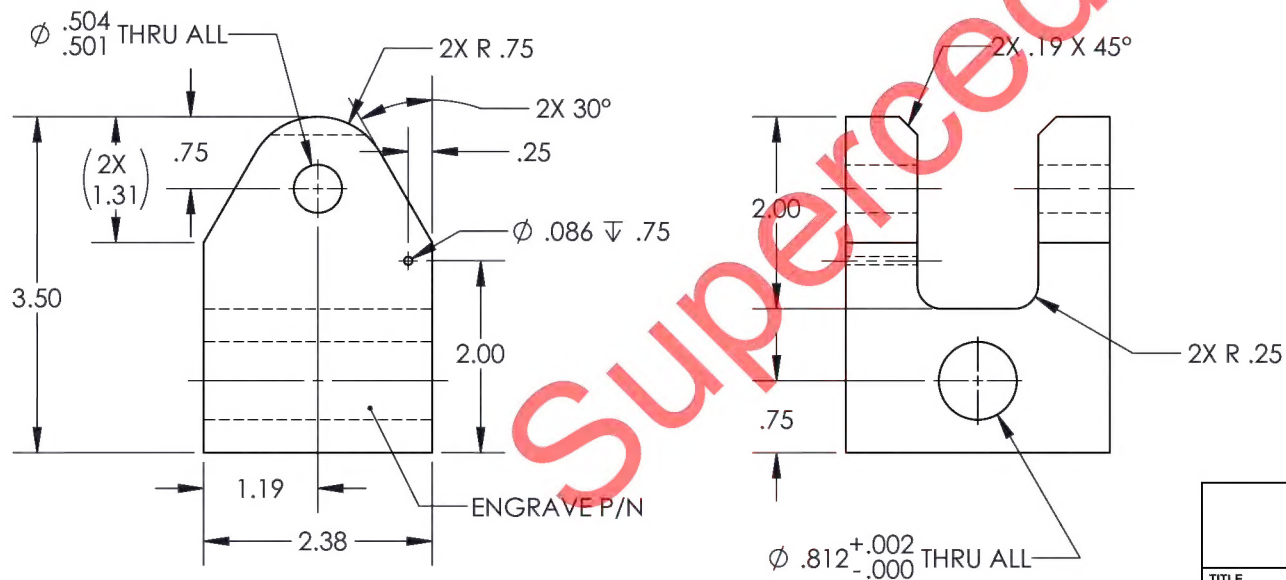
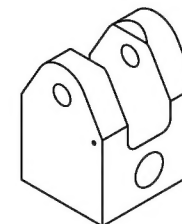
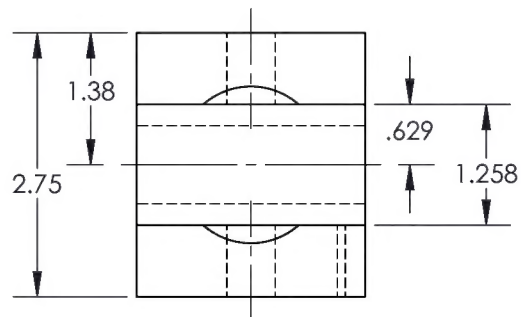
-107

SLEEVE

DART AEROSPACE	
TITLE LIFTING TOOL	
DWG NO. RB T102137-107-107	REV 3
MAT'L 4140/4142	DRAWN BY: PERRITT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005 FRACTIONS ± 1/8	HEAT RC 32-37
.XX ± .01 ANGLES ± 5°	TREAT
.X ± .1	FINISH CAD PLATE YELLOW
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC QQ-P-416F, TYPE II, CLASS II
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL
	BELL 222, 230, 407, 427, 429, 430
SCALE 1:1	DATE 7/22/2010 SHEET 4 OF 6

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CHANGED PART #'S TO REFLECT THOSE OF BELL PART #'S	10/14/2010	WP	DW
1A		CORRECTED DASH # TO -109 FROM RB T102137-109	9/13/2011	JAG	
1B		CH'D -109 HEAT TREAT FROM RC 30-34 PER RW.	11/28/2011	RJC	RW
3	15-0154	-109 CH'D MATERIAL CALL OUT WAS 4140 IS 4140/4142.	6/30/2015	RJC	JAG



UNDER REVIEW
URF 19-685 19.04.08 (VM)

(-109)

CLEVIS

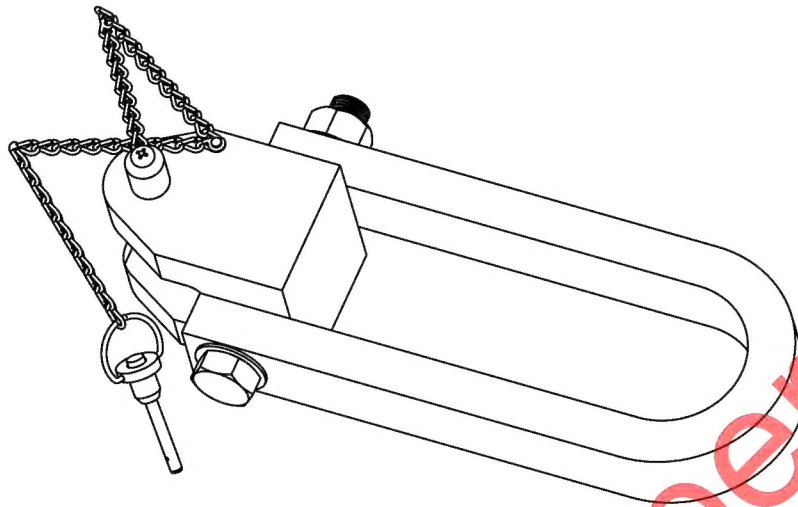
DART AEROSPACE	
TITLE LIFTING TOOL	
DWG NO. RB T102137-107-109	REV 3
MAT'L 4140/4142	DRAWN BY: PERRITT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005	HEAT TREAT RC 32-38
.XX ± .01	FINISH CAD PLATE YELLOW
.X ± .1	SPEC QQ-P-416F, TYPE II, CLASS II
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	BELL 222, 230, 407, 427, 429, 430
SCALE 1:2	DATE 7/22/2010
SHEET 5 OF 6	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CHANGED PART #'S TO REFLECT THOSE OF BELL PART #'S	10/14/2010	WP	DW
3	15-0154	CH'D FIRST ARTICLE WEIGHT TEST ADDRESS WAS RED BARN MACHINE IS DART AEROSPACE.	6/30/2015	RJC	JAG

FIRST ARTICLE WEIGHT TEST

DART AEROSPACE
190 S. DANEBO AVE., EUGENE OR. 97402
(541)344-9953; fax (541)344-3863
e-mail; sales@dartaero.com



INSPECTION & TESTING PROCEDURES FOR THE
RB T102137-107 LIFT TOOL. THIS ASSEMBLY SHOULD
BE INSPECTED BEFORE EACH USE.
REPLACE ANY ITEMS THAT ARE DAMAGED OR SUSPECTED
OF DAMAGE BEFORE USING!

FIRST ARTICLE WEIGHT TEST

1. AFTER INSPECTION, PLACE LIFTING TOOL IN AN APPROPRIATE FIXTURE USE BALL LOCK PIN TO LOCK INTO FIXTURE.
2. APPLY 24,000 lbs. , FOR AT LEAST 5 MINUTES, CONTINUALLY CHECKING FOR CRACKS, DEFLECTION, OR DISTORTION.
3. REMOVE WEIGHT AND RE-INSPECT TOOL, CHECKING FOR STRESS CRACKS, BENDING, OR DISTORTIONS.

UNDER REVIEW
URF 19-685 19.04.08 (VM)


NOTE:
USED ON MODELS: 222, 230, 407, 427, 429, 430.

INSPECTOR_____

TESTER_____

S.N._____

DATE_____

 <p>190 S. Danebo Ave., Eugene, OR. 97402 1-800-556-4166 e-mail: sales@dartaero.com dartaerospace.com</p>			
TITLE LIFTING TOOL			
DWG NO. RB T102137-107	REV 3	CUSTOMER 1 OF 1	
SCALE 1:2	DATE 7/22/2010	SHEET	6 OF 6